

VIRAL INVASION

STEALTH MICROBES PENETRATE AMERICA

Are there some weird new viruses in America? Or is our imagination at work again? Do you get the feeling the country is being invaded more dangerously than ever by stealth microbes?

EBOLA PREMIERS IN THE US

Ebola broke out in West Africa and when US doctors got sick, they received an experimental drug that saved their lives while several thousand unfortunate souls have died.

SWINE FLU FROM CENTRAL AMERICA

The flood of refugees' children footing their way from Honduras, Guatemala and El Salvador brought newly documented cases of swine flu.

STOMACH FLU'S PARALYTIC

"Many state health departments have reported increases this year in cases of severe respiratory illness in children," says the US Centers for Disease Control and Prevention. "All the confirmed cases this year of EV-D68 infection have been among children, except for one adult. Many of the children had asthma or a history of wheezing."

CARIBBEAN CHIKUNGUNYA

In July a newly arrived mosquito-borne virus that causes chronic and debilitating joint pain spread to the continent after infecting hundreds of thousands of people in the Caribbean and Central America. Chikungunya is African for "to become contorted."

The only recorded cases in the US before July involved patients who contracted the virus abroad. Eleven confirmed cases popped up in Florida, marketing its arrival.

FIRST MILK CEMENTS RESISTANCE

Found in the golden fluid that all mammals secrete upon birth to fortify newborn immunity and growth, bovine colostrum is

an abundant source of lactoferrin, which consists of chains of amino acids with side strings of sugars (forming glycoproteins) that have been shown to reduce days of influenza.

"In 1950, Dr Albert Sabin, the polio vaccine developer, discovered that colostrum contained antibodies against polio and recommended it for children susceptible to catching polio," reports Zoltan P. Rona, MD, MS in the *American Journal of Natural Medicine*. "In the United States and throughout the world, conventional doctors used it for antibiotic purposes prior to the introduction of sulfa drugs and penicillin."

FIRST MILK REATTACHES VIRUSES

Although lactoferrin has multiple biological functions, its ability to keep pathogenic microorganisms including bacteria, fungi and

viruses at bay is "regarded as one of the most important." It keeps cold, influenza, gastroenteritis and herpes viruses from taking up residence in the body's tissues by interfering with their ability to attach to target cells.

"Recently," says the study, "studies indicating the *in vivo* protective effects of lactoferrin by oral administration against common viral infections have been increasing. For instance, norovirus is an extremely important emerging human pathogen that causes a majority of gastroenteritis outbreaks worldwide that may be a target candidate for lactoferrin. Lactoferrin consumption reduced the incidence of noroviral gastroenteritis in children and a similar effect was observed in a wide range of ages in a preliminary survey."

BINDS VIRAL PARTICLES

Lactoferrin activity is exerted by binding to cell receptors, viral particles or both to prevent entry into the cell.

The capability of lactoferrin to exert a potent antiviral activity through binding to host cells and/or viral particles strengthens the idea that it "is an important brick in the mucosal wall,



effective against viral attacks and it could be usefully applied as novel strategy for treatment of viral infections."

MODULATES MOTILITY

Lactoferrin's iron-withholding ability is also related to inhibition of microbial growth, modulation of their motility, aggregation and biofilm formation of pathogenic bacteria. (Viruses, unlike bacteria, do not require iron.)

NON-DILUTED COLOSTRUM

First-milking colostrum is taken from dairy cows within the first six hours. True colostrum is produced before the actual birth of the calf and can only be collected for a short period of time without being diluted by the subsequent production of milk. At the time of birth, potency is at its peak. The active elements such as immune factors, growth factors, antioxidants and anti-inflammatory agents are at their highest concentrations. However, in less than 12 hours the concentration of these components is only half of what it was at the time of birth. What this means is that the sooner the colostrum is collected, the less diluted it is with milk, and the greater the concentration of beneficial factors.

Unfortunately, much of what today is sold as colostrum is simply another bulk commodity item as old as 72 hours.

At Immune-Tree, the first-milking colostrum is never diluted with transitional milk—adulterated—or fractionated to remove lipids.

Many people find themselves taking Immune-Tree lozenges with them everywhere for added protection value. Other people take Immune-Tree Colostrum6 in capsules or as powder.

Moo Chews from Immune-Tree contain first-milking colostrum with lactoferrin the child's immune system uses to function normally. The minimum amounts of constituents per serving in Immune-Tree Colostrum6 for children include:

- 2,300 ng/g IGF-1
- 2-3% of lactoferrin
- 25% total immunoglobulins
- 24% proline-rich polypeptides

Immune-Tree colostrum is certified by associates of Cornell University to be "true colostrum" that is low heat spray dried, chemical-free without fillers from within the first 6 hours following birth from cows fed organic grains and never given bovine growth hormone.

REFERENCES

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